VOLUME 3, 1969 CONTENTS

Number 1 — issued May 1969

- MORATTOU-APOSTOLOPOULOU, M., Variability of some morpho-ecological factors in six pelagic copepods from the Aegean Sea. 1
- Makoto Omori, Weight and chemical composition of some important oceanic zooplankton in the North Pacific Ocean. 4
- IBANEZ, F. et S. DALLOT, Etude du cycle annuel des Chaetognathes planctoniques de la rade de Villefranche par la méthode d'analyse des composantes principales. [Study of the annual cycle of planktonic chaetognaths in Villefranche Bay, by the method of principal component analysis]. 11
- Pora, E. A., C. Wittenberger, G. Suárez and N. Portilla, The resistance of *Crassostrea rhizophorae* to starvation and asphyxia. 18
- WITTENBERGER, C., A. CORO, G. SUÁREZ and N. POR-TILLA, Composition and bioelectrical activity of the lateral muscles in *Harengula humeralis*. 24

- Leicht, R., Der Sauerstoffverbrauch von Anguilla vulgaris in seiner Abhängigkeit von Temperaturdifferenzen zwischen Kopfbereich und Rumpf. [The oxygen consumption of Anguilla vulgaris in its relation to temperature differences between head region and body]. 28
- RUTMAN, J. and L. FISHELSON, Food composition and feeding behaviour of shallow-water crinoids at Eilat (Red Sea). 46
- Webb, J. E., On the feeding and behaviour of the larva of Branchiostoma lanceolatum. 58
- Jankowsky, H. D., H. Laudien und H. Precht, Ist eine intrazelluläre Eisbildung bei Tieren tödlich? Versuche mit Polypen der Gattung Laomedea. [Is an intracellular ice formation in animals lethal? — Experiments with polyps of the genus Laomedea]. 73
- WILLIAMS, E. D. F., A submerged membrane filter apparatus for microbiological sampling. 78

Number 2 — issued June 1969

PONOMAREVA, L. A., Investigations on some tropical euphausiid species of the Indian Ocean. 81

Backus, R. H., J. E. Craddock, R. L. Haedrich and D. L. Shores, Mesopelagic fishes and thermal fronts in the western Sargasso Sea. 87

Bertmar, G. and C. Strömberg, The feeding mechanisms in plankton eaters. I. The epibranchial organs in whitefish. 107

Pearse, J. S., Slow developing demersal embryos and larvae of the antarctic sea star *Odontaster validus*.

Pandian, T. J., Yolk utilization in the gastropod Crepidula fornicata. 117

CZEEPAK, R. and B. CZECZUGA, Studies of the pigments in the shrimp Crangon crangon (Crustacea: Malacostraca). 122

Tiffon, Y., J. Bouillon et P. Comte, Etude histologique, histochimique et biochimique des sécrétions ectodermiques des Cérianthes. [Histological, histochemical and biochemical study of the ectoderm secretions of Cerianthi]. 126

O'CONNELL WHITNEY, J., Absence of sterol synthesis in larvae of the mud crab Rhithropanopeus harrisii and of the spider crab Libinia emarginata. 134 SMITH, A. C. and H. F. LITTLE, Liver lesions produced by hydatid-like cysts in an elasmobranch, the electric ray (*Torpedo californica*). 136

Malessa, P., Beiträge zur Temperaturadaptation des Aales (Anguilla vulgaris). III. Höhe und Verteilung der Aktivität von Succinodehydrogenase und Cytochromoxydase im Seitenmuskel juveniler und adulter Tiere. [Contributions to the temperature adaptation of the eel (Anguilla vulgaris). III. Intensity and distribution of the activity of succinate dehydrogenase and cytochrome oxidase in the lateral muscle of juvenile and adult animals]. 143

VOLKMANN-ROCCO, B. and G. FAVA, Two sibling species of *Tisbe* (Copepoda, Harpacticoida): *Tisbe* reluctans and *T. persimilis* n. sp. Research on their morphology and population dynamics. 159

APELT, G., Die Symbiose zwischen dem acoelen Turbellar Convoluta convoluta und Diatomeen der Gattung Licmophora. [The symbiosis between the acoelous turbellarian Convoluta convoluta and diatoms of the genus Licmophora]. 165

RADHAKRISHNA, K., Preliminary studies on primary productivity at Payakonda, Gulf of Kandalaksha, White Sea. 188

VOLUME 3, 1969 CONTENTS (continued)

Number 3 — issued July 1969

- Pettpa, T. S. and N. P. Makarova, Dependence of phytoplankton production on rhythm and rate of elimination. 191
- IGNATIADES, L., Annual cycle, species diversity and succession of phytoplankton in lower Saronicos Bay, Aegean Sea. 196
- ZEITZSCHEL, B., Primary productivity in the Gulf of California. 201
- ROSENTHAL, H., Untersuchungen über das Beutefangverhalten bei Larven des Herings Clupea harengus.
 [Investigations on the prey catching behaviour of larvae of the herring Clupea harengus]. 208
- JOB, S. V., The respiratory metabolism of *Tilapia mossambica* (Teleostei). II. The effect of size, temperature, salinity and partial pressure of oxygen. 222
- Peres, J. M. et J. Picard, Réflexions sur la structure trophique des édifices récifaux. [Considerations on the trophic structure of reef constructions]. 227

- BLANC, F., M. LEVEAU et K. H. SZEKIELDA, Effets eutrophiques au débouché d'un grand fleuve (Grand Rhône). [Eutrophic effects at the mouth of a great river (Grand Rhône)]. 233
- Daumas, R. et M. Fiala, Evaluation de la matière organique vivante dans les eaux marines par la mesure de l'adénosine triphosphate. [Evaluation of the living organic material in marine waters by measuring adenosine triphosphate]. 243
- Bergquist, P. R. and W. D. Hartman, Free amino acid patterns and the classification of the Demospongiae. 247
- ALLEN, J. A., Observations on size composition and breeding of Northumberland populations of Zirphaea crispata (Pholadidae: Bivalvia). 269
- Bruslé, J., Sexualité d'Asterina gibbosa, asteride hermaphrodite, des côtes de Marseille. [Sexuality in Asterina gibbosa, hermaphroditic asterid from the coasts of Marseille]. 276
- LÜNING, K., Standing crop and leaf area index of the sublittoral *Laminaria* species near Helgoland. 282

Number 4 — issued August 1969

- Sournia, A., Cycle annuel du phytoplancton et de la production primaire dans les mers tropicales. [Annual cycle of phytoplankton and of primary production in the tropical seas]. 287
- RADIL-WEISS, T. and N. KOVAČEVIČ, Some biophysical parameters of the skin of the electric fish Torpedo marmorata. 304
- WERDING, B., Morphologie, Entwicklung und Ökologie digener Trematoden-Larven der Strandschnecke Littorina littorea. [Morphology, development and ecology of digenous trematode larvae of the littoral snail Littorina littorea]. 306
- Berland, B. R. and S. Y. Maestrini, Study of bacteria associated with marine algae in culture. II. Action of antibiotic substances. 334
- von Oertzen, J. A., und V.Motzfeld, Eine Apparatur zur kontinuierlichen Respirationsmessung an marinen Organismen. [An apparatus for continuous respiration measurement in marine organisms]. 336
- CHAPMAN, G. and A. C. RAE, Excretion of photosynthate by a benthic diatom. 341
- REISH, D. J. and G. C. STEPHENS, Uptake of organic material by aquatic invertebrates. V. The influence of age on the uptake of glycine-C¹⁴ by the polychaete Neanthes arenaceodentata, 352

